PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(beaven01.001)

5 Applicant: Douglas F. Beaven Confirmation No.:

Application No: 09/312,740 Group Art Unit: 3623

Filed: 5/14/99 Examiner: Tarae, Catherine M.

Title: Processing management information

Commissioner for Patents Alexandria, VA 22313-1450

Appeal Brief under 37 C.F.R. 41.37

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(1) Real party in interest

The real party in interest is Virtualagility, Inc., a Delaware corporation having a place of business at 17 Lakeview Rd., Winchester, MA 01890.

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(2) Related appeals and interferences

The present patent application is the parent of a CIP, USSN 10/765,424. Douglas F. Beaven, et al., *System for performing collaborative tasks*, filed 1/27/04. An appeal is pending in 10/765,424. An *Appeal Brief* was filed 9/17/2007.

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(3) Status of claims

Claims 191-211 are pending in the application; claims 1-190 have been canceled in the course of prosecution. Claims 191-211 all stand rejected. There are two independent claims, 198 and 211. Claims 191-197 are dependent from claim 211 and claims 199-210 are dependent from claim 198. Claims 191-194 and 197-211 all stand rejected under 35 U.S.C. 102(e) as being anticipated by Buteau, et al., U.S. 6,442,557, henceforth "Buteau". Claims 195 and 196 stand rejected under 35 U.S.C. 103(a) as obvious over

the combination of Buteau and Official Notice that systems for sending messages and systems for maintaining discussions are well known. For the convenience of the Board, the following *Appeal* bases references to the Specification and Figures of USSN 09/312,740 on U.S. Published Patent Application 2004/0186762, which is a CIP of USSN 09/312,740 and contains the complete Detailed Description and Drawing of USSN 09/312,740. The material from USSN 09/312,740 in 2004/0186762 begins at paragraph 0049 and ends at paragraph 0183 and includes FIGs. 1-39.

(4) Status of amendments

10 The claims stand as amended on 21 February 2007. No further amendments have been made.

(5) Summary of claimed subject matter

Background

Applicant's invention is a technique for supporting management of a collaborative activity. The technique is implemented in a computer system which includes a database that contains a representation of a model of the collaborative entity and a graphical user interface which permits non-technical users to view and manipulate the model and access information via entities belonging to the model.

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Software which supports management of a collaborative activity is of course well known. Broadly speaking such software falls into two classes:

- Software which is usable by non-technical people but provides the user with only a single simple model for the collaboration and
- Software which permits the user to make any kind of model whatever for the collaboration but is not usable by non-technical people.

The problem with the first class of software is the inflexibility of the model. The problems with the second class are the complexity of the systems and the difficulties of making models from scratch.

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Applicant's solution

Applicant's solution to the problems of the prior art is a modeling technique which is

simple enough for non-technical collaborators to understand and use but powerful enough to model many different kinds of collaborations. The components of the solution are:

a model which has at least two kinds of hierarchies and permits a given model entity
to belong to more than one kind of hierarchy. The hierarchies provide different
contexts through which collaborators may view and access model entities.

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 a graphical user interface for manipulating the hierarchies and the model entities which requires no technical training to use.

In a preferred embodiment, the model entities are goals and projects on the one hand and domains on the other. One of the kinds of hierarchies is a goal and projects hierarchy of things to be done and projects for doing them; another kind is a domain hierarchy of functional areas of the collaboration. A goal or project of the model may belong simultaneously to a domain hierarchy and a goal and projects hierarchy and may be viewed or accessed via either hierarchy. Domains are explained at 0057 of 2004/0186762 and goals at 0059. A screen of the GUI that displays a hierarchy of goals and projects is shown in FIG. 3; a screen of the GUI which displays a hierarchy of domains is shown in FIG. 8; a screen of the GUI which displays goals belonging to a domain is shown in FIG. 9; a screen which shows goals and projects as they appear in the domain hierarchy is shown in FIG. 16. The GUI may be used to control access to goals and projects, to create, modify, and/or delete goals and projects, to assign a goal or project to a location in a domain hierarchy or a goal and project hierarchy, to access information via a goal or project, and to view goals or projects ordered by a value in the goal or project's information.

25 Independent claim 198 addresses the feature of the above system that a model entity may be created and assigned to a first and a second hierarchy; independent claim 211 addresses that feature as well as other operations; both claims set forth the limitation that the system's GUI may be used by persons who are not specialists in information technology. In the following, the limitations of these claims will be mapped to the Specification and Drawing. The mapping is for the convenience of the Board and is not intended to limit the scope of the claims.

Claim 211

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- 211. A system for supporting management of a collaborative activity by persons involved therein (pars. 0080-0105), the persons not being specialists in information technology (pars. 0130-0131) and the system comprising:
- a representation (par. 0079) of a model of the collaborative activity, the representation being accessible to a processor and the model of the collaborative activity including model entities (domains, FIG. 6, par. 0123, and goals, FIG. 3, par. 0127) the model entities providing access to information concerning the collaborative activity (FIGs. 16-21, par. 0131), being organized into a plurality of hierarchies (domain and goal hierarchies, FIG. 6 and FIG 3) having a plurality of types, and a given model entity being capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types (goals sorted by domain hierarchy, FIG. 16, par. 0132); and
- a graphical user interface for the system (par. 0085, pars. 0140-0181) which the processor provides to the persons, the graphical user interface permitting a person of the persons to perform operations on a model entity as limited by a type of access which the person has to the model entity (FIG. 27, par. 0165), the operations including controlling access to the model entity (FIG. 27, par. 0165), creating (par. 0125), modifying (par. 0161), and/or deleting (par. 0163) the model entity, assigning the model entity to a location in a hierarchy (FIG. 13 and par. 0144), accessing and/or modifying the information concerning the collaborative activity via the model entity (FIG. 33 and par. 0172), viewing model entities as ordered by a hierarchy to which the entities belong (FIG.16, par. 0132), and viewing model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access (FIGs. 18 and 20, par. 0179).

Claim 198

198. A method of supporting management of a collaborative activity in a system which includes a processor, the processor having access to a database containing a model of the collaborative activity (pars. 80-105), the model including representations of model entities (domains, FIG. 6, par. 0123, and goals, FIG. 3, par. 0127), a given representation of a model entity being capable of simultaneously belonging to hierarchies including a hierarchy and another hierarchy (goals sorted by domain hierarchy, FIG. 16, par. 0132), and the representations of model entities providing access to information relating to the collaborative activity (FIGs. 16-21, par. 0131), the processor providing an interface (par. 0085, pars. 0140-0181)

for one or more users of the system who are not specialists in information technology (pars. 0130-0131), and the method comprising the steps performed in the system of:

receiving a definition of a model entity belonging to the model of the collaborative activity from a user via the interface (par. 0125) and responding thereto by producing a representation of the model entity in the database; and

receiving a first indication of a first hierarchical relationship between the model entity and another model entity belonging to the hierarchy from the user via the interface and responding thereto by relating the model entity to the other model entity in the hierarchy (goal hierarchy, FIG. 13, par. 0144) and

receiving a second indication of a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy from the user via the interface and responding thereto by relating the model entity to the third model entity in the other hierarchy (domain hierarchy, FIG. 7, par. 0123).

30 (6) Grounds of rejection to be reviewed on appeal

The grounds of rejection to be reviewed on appeal are the following:

- the rejection of claims 211 and claims 191-194 and 197 under 35 U.S.C. 102(e) as anticipated by Buteau, et al., U.S. 6,442,557, henceforth "Buteau"
- the rejection of claims 195 and 196 under 35 U.S.C. 103 as obvious over the combination of Buteau and Official Notice that systems for sending messages and systems for maintaining discussions are well known, and
- The rejection of claims 198-210 under 35 U.S.C. 102(e) as anticipated by Buteau. The rejection of claims 211, 191-194, and 197 is being argued separately from that of claims 198-210; the rejection of claims 95 and 96 stands and falls with the rejection of claims 211, 191-194, and 197.

(7) Argument

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As set forth in MPEP 2131, a rejection of a claim under 35 U.S.C. 102 requires that the reference which forms the basis of the rejection disclose all of the limitations of the rejected claim. In the following, it will be demonstrated that Buteau fails to disclose many of the limitations of claims 211 and 198, that the rejections of these claims under 35 U.S.C. 102 as anticipated by Buteau cannot stand, and that because claim 211 as

anticipated by Buteau cannot stand, the rejections of claims 195 and 196 under 35 U.S.C. 103 also cannot stand

The Buteau reference

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As set forth in the *Abstract*, the Buteau reference discloses a system that evaluates an enterprise architecture to see how architectural changes to the enterprise affect the enterprise architecture. The enterprise architecture is described in terms of the Department of Defense's Technical Architecture Model for Information Management (TAFIM). Buteau's FIG. 2 shows the TAFIM model. In Buteau's system, the TAFIM model is represented using tables in a relational database system. The tables define three subdivisions of the TAFIM model: a work flow model, an information model, and a technology model. An enterprise architect specifies a particular enterprise architecture belonging to the TAFIM model by placing information in the data structures of the model's representation in the relational database system (col. 2, lines 21, 22, col. 6, lines 44-48). The Buteau reference thus discloses a system that employs a single kind of model. The model may further be manipulated only by a technically trained person.

The implementation of the model in the relational database system is shown in FIGs. 4-7. The figures use entity-relationship diagrams to define the relationships between the tables making up the model. In entity-relationship diagrams, tables in which entries may have hierarchical relationships to each other are indicated by arrows which loop back into the table. As shown in FIG. 7, four of the tables in Buteau permit hierarchical relationships among the table's entries: Organization table 290, discussed at col. 9, line 59-col. 10, line 20, Info Type table 540, discussed at col. 15, lines 42-67, Info Repository table 520, discussed at col. 16, lines 26-51, and Info Format Table 570, discussed at col. 17, lines 21-38. It is clear from the nature of these tables that an entry in one of the tables cannot be a member of a hierarchy in another of the tables; the discussions of the tables further make it clear that an entry in one of the tables cannot be a member of two different hierarchies in the table (the entry can of course be both a member of a hierarchy and a member of a subhierarchy of that hierarchy).

Buteau's user interface is described at col. 22, lines 20-62. It has a simple interface, shown in FIG. 8, for inputting information to the database, but all other operations require the user to write sophisticated SQL code. See in this regard lines col. 22, lines 56-58. FIG. 9 shows the screen in which the SQL code is written and FIG. 10 shows the screen on which the output of the guery of FIG. 9 appears.

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Continuing in more detail with the GUI of FIG. 8, there is no real disclosure in Buteau of what the GUI is intended to do. The GUI is an edit GUI; what is being edited is information relevant to the Center for Applied Technology organization, which is a part of the Defense Systems organization. The user can select a location belonging to the Center for Applied Technology from the drop down menus listed under "Location" and then having selected the location, may apparently change a "Quantity" value for the location and write a comment having to do with the quantity value. The lists in the drop down menus are attributes that are determined by the "enterprise architect" (col. 22, lines 21-22).

Important differences between Buteau and Applicant's claims 221 and 198 include the following:

- the enterprise architectures represented by Buteau's system are relatively static; they
 are designed for use by architects and planners (col. 6, line 15) and changes in a
 particular enterprise architecture are made by an enterprise architect (col. 22, lines 2223). Non-technical users can view information from the model and edit the
 information in the model but cannot change the model itself.
- There is only limited visibility of Buteau's model in Buteau's GUI, there is nothing in
 Buteau's GUI corresponding to any of Applicant's FIGs. 3, 6, 7-10, 12-24, 26-33,
 34A-39. The GUI for non-technical users consists of the data input screen shown in
 FIG. 8 and described at col. 22, lines 20-32. Technical users interact with the system
 by writing SQL queries, as shown in FIGs. 9 and 10 and described at col. 22, lines
 31-62

- Any operation in Buteau's system beyond those possible using the GUI of FIG. 8
 require writing SQL queries. The need to do this makes these operations too difficult
 for non-technical users
- Buteau's model does not permit an entity in the model to be a member of two
 different types of hierarchies; consequently, Buteau's model does not permit the use
 of different types of hierarchies to see and access the information in the model from
 different perspectives.
- There is no disclosure in Buteau indicating that non-technical users of Buteau's system can change the form of Buteau's model and consequently there is no disclosure that users of Buteau's system can "assign[] the model entity to a location in a hierarchy", or "view[] model entities as ordered by a hierarchy to which the entities belong". Non-technical users, finally, cannot "view[] model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access".

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Patentability of claim 211 over Buteau

Claim 211 includes the following limitations which are not disclosed in Buteau:

- Because non-technical users of Buteau's system can employ Buteau's interface only
 to edit data regarding entities in the model, Buteau is not "a system for supporting
 management of a collaborative activity by persons involved therein, the persons not
 being specialists in information technology" (claim 211, lines 1-3).
- While Buteau's model includes hierarchies, it does not permit a model entity to belong to two different types of hierarchies (lines 10-14).
- Buteau's graphical user interface permits "persons [who are not] specialists in
 information technology" only to edit data regarding entities using screens like those
 shown in FIG. 8. As would be expected from this, there is no disclosure in Buteau
 which indicates that a non-technical user can employ Buteau's GUI to perform any of
 the claimed operations of
 - "controlling access to the model entity";
 - "assigning the model entity to a location in a hierarchy" or

- "viewing model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access"

Because none of the foregoing limitations of Applicant's claim 211 are disclosed in Buteau, Examiner's rejection of the claim under 35 U.S.C. 102 as anticipated by Buteau is without foundation. Further, because Buteau fails to disclose all of the limitations of independent claim 211, it similarly fails to disclose all of the limitations of the claims dependent from claim 211. As will be explained in detail below, some of these dependent claims contain further limitations that are not disclosed in Buteau and are consequently patentable in their own rights over the reference.

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Patentable weight of "persons not being specialists in information technology". In her Office action of \$1/21/2006 and her final Office action of \$5/21/2007, Examiner argued that the language "the persons not being specialists in information technology" had no patentable weight. While the patentability of claim 211 over Buteau does not depend on whether the language "the persons not being specialists in information technology" has patentable weight, it is worth pointing out here that MPEP 2100-42, Rev. 5, Aug. 2006, I. Preamble Statements Limiting Structure requires a contrary conclusion. The cited location in the MPEP reads as follows:

Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.

In claim 211, the "graphical user interface" is a structural component of the claimed invention, and it is this structural component that is limited by the "users who are not specialists in information technology". That language consequently must be treated as a claim limitation.

In her final rejection, Examiner further argues that "users who are not specialists in information technology" is "non-functional descriptive data" because

it does not preclude specialists in information technology from using the graphical user interface to perform operations on the model entity. Any type of user could be specified in the claimed system and the structural

elements and manipulative functionality would remain the same. (Final rejection, page 3)

The point of the limitation "users who are not specialists in information technology" is not who it excludes but who it includes. The limitation points out a clear distinction between Buteau and Applicant's system: in Buteau, changes necessary to adapt the model for individual enterprises are made by architects and planners (col. 6, line 15), i.e. technical people; non-technical users can change the information in the model but not the model itself.

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As for the "patentable weight" of the limitation, it is repeatedly pointed out in the Specification that a large part of the value of the invention comes from the fact that it can be used by everyone who is collaborating in the business in which the invention is being used. See in this regard paragraphs 0130 through 0136. Moreover, even the most cursory reflection on the history of digital data processing leaves no doubt that the user interface is crucial to the usability of a technology. In the early 70's, for example, the WYSIWYG GUI for word processing replaced text processing languages like troff and turned word processing into a task for clerical help. A

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system for supporting management of a collaborative activity by persons involved therein, the persons not being specialists in information technology

represents the same kind of progress over systems like those of Buteau, which is not usable by "persons involved therein [who are not] specialists in information technology" to support management of a collaborative activity. That being the case, the limitation clearly has patentable weight.

Additional limitations of the claims that are dependent from claim 211 that are not disclosed in Buteau

30 Claims 192-196 all involve the use of the graphical user interface to

access the representations of the related further information via the model entities to which the representations are related

Buteau's way of accessing related further information is of course the SQL query interface of FIG. 9, and that interface is not usable by "persons... who are not specialists in information technology", as required by claim 211, and consequently, Buteau does not disclose the further limitations of claims 192-196.

The rejections of claims 195 and 196 under 35 U.S.C. 103

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As set forth in MPEP 2142, rejection of a claim under 35 U.S.C. 103 requires that Examiner establish a *prima fucie* case of obviousness of the claimed invention. One element of this case is that the combination of references which forms the basis of the rejection must disclose all of the limitations of the claims under rejection. The rejections of claims 195 and 196 thus depend on the anticipation of claim 211 by Buteau and consequently cannot stand if, as demonstrated above, Buteau does not anticipate claim 211.

The rejection of claim 198 as anticipated by Buteau

The method set forth in the claim is the method used in Applicant's system to create a model entity and relate the model entity to other model entities in a hierarchy and another hierarchy. Limitations of the claim that are not disclosed in Buteau include:

- "a representation of a model entity [which is] capable of simultaneously belonging to a hierarchy and another hierarchy" (lines 5-7)
- "the processor provid[es] an interface for one or more users of the system who are not specialists in information technology" and the steps of the method are performed using that interface (lines 10-12).
 - · the method steps of the body of the claim:
 - "receiving a definition of a model entity belonging to the model of the collaborative activity from a user via the interface (par. 0125) and responding thereto by producing a representation of the model entity in the database" (lines 14-17)
 - "receiving a first indication of a first hierarchical relationship between the model entity and another model entity belonging to the hierarchy from the user via the interface and responding thereto by relating the model entity to the other model entity in the hierarchy" (lines 18-22)

- "receiving a second indication of a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy from the user via the interface and responding thereto by relating the model entity to the third model entity in the other hierarchy" (lines 23-26)

As set forth in more detail in the discussion of claim 211 above, Buteau does not disclose model entities that are capable of belonging to a hierarchy and another hierarchy, nor does Buteau disclose an interface for non-technical users that permits them to perform the method steps of the claim. As to the patentable weight of this distinction, see the discussion of claim 211. As for the three method steps, the only interface in Buteau which is available to "users of the system who are not specialists in information technology" is that shown in FIG. 8. There is no disclosure of what can be done with the GUI of FIG. 8 other than that of the figure and of col. 22, 20-31. None of this disclosure indicates that the GUI is used in Buteau to add entities to the model or change hierarchical relationships between model entities. Indeed, because adding a new model entity and changing the hierarchical relationships between model entities both involve changing the available attributes and this can only be done by the "enterprise architect", the disclosure strongly suggests that the GUI of FIG. 8 cannot be used to perform any of the steps of Applicant's method. Because this is the case, Buteau also does not anticipate claim 198 or any of the claims dependent therefrom.

Additional limitations of the claims that are dependent from claim 198 that are not disclosed in Buteau

Claims 199-202 have to do with ways in which Applicant's GUI shows hierarchical relationships. Since Buteau's GUI of FIG. 8 does not show hierarchical relationships, Buteau does not show the additional limitations of the claims. The additional limitations of claims 203-209 are similar to the additional limitations of claims 192-196 and as explained with regard to those limitations, are not disclosed in Buteau.

Conclusion

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In the foregoing, Applicant has complied with the requirements of 37 C.F.R. 41.37 with regard to his brief and has demonstrated in the brief that Buteau does not disclose all of the limitations of claims 191-194 and 197-211 and consequently does not anticipate any of those claims and that because Buteau does not disclose all of the limitations of claim 211, Examiner has failed to establish a *prima facie* case of obviousness with regard to claims 195 and 196. That being the case, the rejections cannot stand and Applicant respectfully requests that the Board of Appeals reverse Examiner with regard to all of her rejections and remand the application to Examiner for further processing as indicated by the reversals.

10 Respectfully submitted,

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Date

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(8) Appendix of claims

- Claims 1 125: canceled
- 2 Claims 126-186; canceled
- 3 Claims 187-190; canceled
- 1 191. The system set forth in claim 211 wherein:
- 2 there is a plurality of types of model entities; and
- 3 the graphical user interface shows a model entity's type.
- 1 192. The system set forth in claim 211 wherein:
- 2 the model further includes representations of further information that are related
- 3 to certain of the representations of the model entities; and
- 4 the graphical user interface further permits the user to access the representations
- 5 of the related further information via the model entities to which the representations are
- 6 related.
- 1 193. The system set forth in claim 192 wherein:
- 2 the graphical user interface further permits the user to modify the further
- 3 information.
- 1 194. The system set forth in claim 193 wherein:
- the further information is a document that is accessible to the system.
- 1 195. The system set forth in claim 193 wherein:
- 2 the further information is a message sent to the person by another person.
- 1 196. The system set forth in claim 194 wherein:
- 2 the further information is a discussion concerning the model entity among the
- 3 persons.

1 197. A data storage device, the data storage device being characterized in that!

the data storage device contains a program which, when executed in a computer

system, implements the system set forth in claim 211.

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the system of:

198. A method of supporting management of a collaborative activity in a system which Ĭ 2 includes a processor, the processor having access to a database containing a model of the collaborative activity, the model including representations of model entities, a given 3 representation of a model entity being capable of simultaneously belonging to 1 5 hierarchies including a hierarchy and another hierarchy, and the representations of model entities providing access to information relating to the collaborative activity, the 6 processor providing an interface for one or more users of the system who are not 7 8 specialists in information technology, and the method comprising the steps performed in

receiving a definition of a model entity belonging to the model of the collaborative activity from a user via the interface and responding thereto by producing a representation of the model entity in the database; and

receiving a first indication of a first hierarchical relationship between the model entity and another model entity belonging to the hierarchy from the user via the interface and responding thereto by relating the model entity to the other model entity in the hierarchy and

receiving a second indication of a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy from the user via the interface and responding thereto by relating the model entity to the third model entity in the other hierarchy.

199. The method set forth in claim 198 further comprising the step of:

receiving an indication from the user via the interface that one or the other of the hierarchical relationships is to be shown in the interface and responding thereto by showing the indicated relationship in the interface.

200. The method set forth in claim 198 wherein:

- the hierarchy and the other hierarchy are different types of hierarchical relationships.
- 201. The method set forth in claim 200 wherein the method further comprises the steps
- 2 of:
- receiving a third indication from the user via the interface of the type of
 hierarchical relationship to be used in displaying the model entity in the interface; and
- 5 responding thereto by displaying the model entity in the interface using the
- 6 indicated hierarchical relationship.
- 1 202. The method set forth in claim 199 wherein:
- the indicated hierarchical relationship is shown in the interface by displaying model entities as sorted by the relationship.
- 203. The method set forth in claim 198 wherein the representation of the model entity
- 2 includes a representation of information about the collaborative activity and
- 3 the method further comprises the steps of:
- 4 receiving a third indication of the model entity from the person via the interface;
- 5 receiving a fourth indication of the information from the user via the interface;
- 6 and

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- responding thereto by producing the representation of the information in the interface as part of the representation of the model entity in the interface.
- 2 receiving a fifth indication from the user via the interface that the information in

The method set forth in claim 203 further comprising the steps of:

- 3 the representation of the information in the representation of the model entity is to be
- 4 displayed; and

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- 5 responding thereto by showing the indicated information in the interface.
- 205. The method set forth in claim 203 further comprising the step of:

| 2 | | receiving a sixth information from the user via the interface that the information |
|---|---|--|
| 3 | in the | representation of the information in the representation of the model entity is to be |
| 4 | modif | ied; and |
| 5 | | responding thereto by permitting the user to modify the information. |
| 1 | 206. | The method set forth in claim 203 further comprising the steps of: |
| 2 | | receiving a sixth indication from the user via the interface that the model entities |
| 3 | are to | be sorted by values of the information in the representation of the information in |
| 4 | the representation of the model entity; and | |
| 5 | respor | iding thereto by showing the sorted model entities in the interface. |
| } | 207. | The method set forth in claim 198 further comprising the steps of: |
| 2 | | receiving a third indication from the user via the interface of a model entity; |
| 3 | | receiving a fourth indication that further information is to be related to the |
| 4 | indicated model entity; and | |
| 5 | | responding thereto by relating a representation of the further information to the |
| 6 | repres | entation of the indicated model entity. |
| ł | 208. | The method set forth in claim 207 further comprising the steps of: |
| 2 | | receiving a fifth indication from the user via the interface that the further |
| 3 | information related to the model entity is to be displayed; and | |

209. The method set forth in claim 208 further comprising the steps of.

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receiving a sixth indication from the user via the interface that the further information related to the model entity is to be modified; and

responding thereto by showing the related further information in the interface.

4 responding thereto by modifying the related further information.

210. A data storage device, the data storage device being characterized in that:

the data storage device contains a program which, when executed in a computer
 system, implements the method set forth in claim 198.

- 211. A system for supporting management of a collaborative activity by persons involved therein, the persons not being specialists in information technology and the system comprising:
- a representation of a model of the collaborative activity, the representation being accessible to a processor and the model of the collaborative activity including model entities, the model entities providing access to information concerning the collaborative activity, being organized into a plurality of hierarchies having a plurality of types, and a given model entity being capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types; and

a graphical user interface for the system which the processor provides to the persons, the graphical user interface permitting a person of the persons to perform operations on a model entity as limited by a type of access which the person has to the model entity, the operations including controlling access to the model entity, creating, modifying, and/or deleting the model entity, assigning the model entity to a location in a hierarchy, accessing and/or modifying the information concerning the collaborative activity via the model entity, viewing model entities as ordered by a hierarchy to which the entities belong, and viewing model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access.

(9) Evidence appendix

(None)

(10) Related proceedings appendix

(None)